MADROÑO

A WEST AMERICAN JOURNAL OF BOTANY

VOLUME XXXIII
1986

BOARD OF EDITORS

Class of:

1986—Amy Jean Gilmartin, Washington State University, Pullman
Robert A. Schlising, California State University, Chico

1987—J. Rzedowski, Instituto de Ecologia, A.C., Mexico
Dorothy Douglas, Boise State University, Boise, ID

1988—Susan G. Conard, USDA Forest Service, Riverside, CA
William B. Critchfield, USDA Forest Service, Berkeley, CA

1989—Frank Vasek, University of California, Riverside
Barbara Ertter, University of California, Berkeley

1990—Barry D. Tanowitz, University of California, Santa Barbara
Thomas R. Van Devender, Arizona–Sonora Desert Museum, Tucson
Steven Timbrook, Santa Barbara Botanic Garden

Editor—Wayne R. Ferren, Jr.

Associate Editor—J. Robert Haller [33(1–3)]
—Barry D. Tanowitz [33(4)]
Department of Biological Sciences
University of California, Santa Barbara, CA 93106

Published quarterly by the
California Botanical Society, Inc.
Life Sciences Building, University of California, Berkeley 94720

Printed by Allen Press, Inc., Lawrence, KS 66044

We take great pleasure in dedicating Volume 33 of Madroño to Marion Stilwell Cave, an outstanding contributor to our knowledge of the embryology and cytology of Liliaceae and Agavaceae. As a long-time researcher in the Department of Botany and Botanical Garden, University of California, Berkeley, she has been a cytological collaborator in the taxonomy of the Hydrophyllaceae and Volvocales. She founded and, from 1956 to 1964, was editor of Index to Plant Chromosome Numbers, currently being published by Missouri Botanical Garden. Her paper, demonstrating that there is a free nuclear stage in embryo development in California species of *Paeonia,* was a botanical coup.

Through the years Marion has been, and still is, a generous and enthusiastic advisor, warm friend, and valued tutor to a succession of graduate students. She also has introduced them to photography and darkroom techniques, where, as in all things, she is a perfectionist. It is Marion who saw the need for a photographic record of staff and students in the Department and is responsible for our "rogues' gallery".

TABLE OF CONTENTS

ADAMS, JOHN W. (see TANOWITZ, BARRY D.)
ANNABLE, CAROL R. (see PETERSON, PAUL M.)
BACIGALUPI, RIMO (see HECKARD, LAWRENCE R.)
BAHRE, CONRAD J. (see CARPENTER, DEAN E. et al.)
BARBOUR, MICHAEL G. (see CARPENTER, DEAN E. et al.)
BARKWORTH, MARY E. (see FERREN, WAYNE R., JR. et al.)
BARRY, W. JAMES (see BARTOLOME, JAMES W. et al.)
BARTEL, JAMES A., Letter on *Hastingsia* 299
BARTOLOME, JAMES W., STEVEN E. KLUKKERT, and W. JAMES BARRY, Opal phytoliths as evidence for displacement of native Californian grassland 217
BECKING, RUDOLF W., *Hastingsia atropurpurea* (Liliaceae: Asphodeleae), a new species from southwestern Oregon 175
BRATT, CHARIS C., Noteworthy collections of *Caloplaca rosei, Cyphelium pinicola, Hypotrachyna revoluta,* and *Sphinctrina leucopoda* 227
BROICH, STEVEN L., A new species of *Lathyrus* (Fabaceae) from northwestern California 136
BRUNSFELD, STEVEN J. and FREDERIC D. JOHNSON, Notes on *Betula* ser. *Humiles* (Betulaceae) in Idaho 147
BULLOCK, STEPHEN H., Observations and an experiment on synchronous flowering 223
BUT, PAUL P. H., Taxonomy of Oregon semaphore grass, *Lophochlaena oregana* (Poaceae) 146
CARPENTER, DEAN E., MICHAEL G. BARBOUR, and CONRAD J. BAHRE, Old field succession in Mojave Desert scrub 111
CARTER, ANNETTA, Review of *Manual de herbario, administración y manejo de colecciones, técnicas de recolección y reparación de ejemplares botánicos* (by Antonio Lot y Fernando Chang) 232
CARTER, ANNETTA and JOHN H. THOMAS, Vesta Florence Hesse, 1901–1982 307
CESKA, ADOLF and OLDRISKA CESKA, Noteworthy collection of *Utricularia inflata* 80
CESKA, OLDRISKA (see CESKA, ADOLF)
CHAREST, NANCY (see CLARK, CURTIS and NANCY CHAREST)
CHRISTY, JOHN A. (see FRENKEL, ROBERT E. et al.)
CLARK, CURTIS, *Eschscholzia lemmonii* subsp. *kernensis* (Papaveraceae), a new combination for the Tejon poppy 224
CLARK, CURTIS and NANCY CHAREST, Noteworthy collection of *Sanguisorba minor* subsp. *muricata* 231
CLARK, CURTIS and DONALD L. SANDERS, Floral ultraviolet in the *Encelia* alliance (Asteraceae: Heliantheae) 130
CODY, MARTIN L. and HENRY J. THOMPSON, Distribution and morphology of *Haplopappus* hybrids (Asteraceae: Astereae) in the Mojave Desert 237
CORNETT, JAMES W., Spineless petioles in *Washingtonia filifera* (Arecaceae) 76
CORNETT, JAMES W., Letter on spines of *Washingtonia* 233
DAVIS, W. S. and RALPH PHILBRICK, Natural hybridization between *Malacothrix incana* and *M. saxatilis* var. *implicata* (Asteraceae: Lactuceae) on San Miguel Island, California 253
DEDECKER, MARY (see WEINS, DELBERT et al.)
DES LAURIERS, JAMES and MARK IKEDA, An apparent case of introgression between pinyon pines of the New York Mountains, eastern Mojave Desert 55
DORN, ROBERT D. (see EVERT, ERWIN et al.)
EVERT, ERWIN F., ROBERT D. DORN, RONALD L. HARTMAN, and ROBERT W. LICHVAR, Noteworthy collections of *Arctostaphylos rubra, Bromus vulgaris, Carex limosa, C. livida, C. microglochin, C. scirpiformis, Festuca subulata,*

Kobresia simpliciuscula, Lolium multiflorum, Ophioglossum vulgatum var. *pseudopodum, Primula egaliksensis, Salix myrtillifolia* var. *myrtillifolia, Saxifraga nidifica* var. *nidifica, Scirpus pumilus, Silphium integrifolium,* and *Trautvetteria caroliniensis* 313
FERREN, WAYNE R., JR., Editor's Report for Volume 33 319
FERREN, WAYNE R., JR. and J. ROBERT HALLER, Editorial 83
FERREN, WAYNE R., JR., STEVEN A. JUNAK, and MARY E. BARKWORTH, Noteworthy collections of *Stipa diegoensis* 309
FOIN, THEODORE C. and MARY M. HEKTNER, Secondary succession and the fate of native species in a California coastal prairie community 189
FREEMAN, C. EDWARD, Nectar-sugar composition in an individual of *Ruellia peninsularis* (Acanthaceae) 300
FRENKEL, ROBERT E., WILLIAM H. MOIR, and JOHN A. CHRISTY, Vegetation of Torrey Lake Mire, central Cascade Range, Oregon 24
GANDERS, FRED R. and GERDA R. KRAUSE, Systematics of *Collinsia parviflora* and *C. grandiflora* (Scrophulariaceae) 66
GREGORY, SHARI (see LESICA, PETER, KLAUS LACKSCHEWITZ et al.)
GRIFFIN, JAMES R., Review of *California serpentines: flora, vegetation, geology, soils, and management problems* (by Arthur R. Kruckeberg) 81
HALLER, J. ROBERT (see FERREN, WAYNE R., JR. and J. ROBERT HALLER)
HALPERN, CHARLES B., Montane meadow plant associations of Sequoia National Park, California 1
HALSE, RICHARD R. and JUDITH B. GLAD, A note on the status of *Sidalcea nelsoniana* (Malvaceae) 225
HALSE, RICHARD R. and LA REA DENNIS JOHNSTON, Noteworthy collections of *Limonium californicum, Panicum dichotomiflorum, Peplis portula, Ranunculus parviflorus,* and *Veratrum insolitum* 312
HARTMAN, RONALD L. (see EVERT, ERWIN F. et al.)
HAWKSWORTH, FRANK G. (see VAN DEVENDER, THOMAS R.)
HECKARD, LAWRENCE R. and RIMO BACIGALUPI, *Mimulus shevockii* (Scrophulariaceae), a new species from desert habitats in the southern Sierra Nevada of California 271
HEISER, CHARLES, Review of *The Solanaceae of New Guinea* (by D. E. Symon) 232
HEKTNER, MARY M. (see FOIN, THEODORE C.)
HUNTER, JOHN E., Some responses of *Sidalcea calycosa* (Malvaeae) to fire 305
IKEDA, MARK (see DES LAURIERS, JAMES)
JOHNSON, FREDERIC D. (see BRUNSFELD, STEVEN J.)
JOHNSTON, LA REA DENNIS (see HALSE, RICHARD R.)
JOYAL, ELAINE, Noteworthy collections of *Astragalus geyeri, Claytonia exigua,* and *Downingia insignis* 80
JUNAK, STEVEN A. (see FERREN, WAYNE R., JR. et al.)
KAGAN, JAMES S., A new species of *Lomatium* (Apiaceae) from southwestern Oregon 71
KANG, BYOUNG-KY (see VICKERY, ROBERT K., JR. et al.)
KIERSTEAD, JULIE (see LEARY, PATRICK J.)
KLUKKERT, STEVEN E. (see BARTOLOME, JAMES W. et al.)
KRAUSE, GERDA R. (see GANDERS, FRED R.)
LACKSCHEWITZ, KLAUS (see LESICA, PETER, KLAUS LACKSCHEWITZ et al.)
LATHROP, EARL W. (see MARTIN, BRADFORD D.)
LAVIN, MATT, A new species of *Coursetia* (Fabaceae: Robinieae) from the Chihuahuan Desert, Mexico 182
LAVIN, MATT (see RUST, RICH)
LEARY, PATRICK J. and JULIE KIERSTEAD, Noteworthy collections of *Allium acuminatum, A. tolmiei* var. *persimile, A. t.* var. *platyphyllum, Arabis crucisetosa, Bupleurum americanum, Castilleja chlorotica, Lomatium*

greenmanii, Lythrum hyssopifolia, Onobrychis viciaefolia, Petasites frigidus var. *palmatus,* and *Potentilla recta* 229
LESICA, PETER, KLAUS LACKSCHEWITZ, JOHN PIERCE, SHARI GREGORY, and MARIA O'BRIEN, Noteworthy collections of *Agastache cusickii, Carex comosa, Draba macounii, Drosera linearis, Heteranthera dubia, Kobresia simpliciuscula, Phacelia incana, Primula alcalina, Sagina nivalis, Scirpus cyperinus, Shoshonea pulvinata, Townsendia florifer,* and *T. spathulata* 310
LESICA, PETER and PHILIP V. WELLS, Noteworthy collection of *Arctostaphylos patula* subsp. *platyphylla* 227
LEVIN, GEOFFREY A., Noteworthy collection of *Rosa minutifolia* 150
LICHVAR, ROBERT W. (see EVERT, ERWIN F. et al.)
MAC, THUONG K. (see VICKERY, ROBERT K., JR. et al.)
MARTIN, BRADFORD D. and EARL W. LATHROP, Niche partitioning in *Downingia bella* and *D. cuspidata* (Campanulaceae) in the vernal pools of the Santa Rosa Plateau Preserve, California 284
MATSUDA, KOZUE and JOE R. MCBRIDE, Differences in seedling growth morphology as a factor in the distribution of three oaks in central California 207
MCBRIDE, JOE R. (see MATSUDA, KOZUE)
MCNEAL, DALE W., Noteworthy collection of *Allium anceps* 149
MEINKE, ROBERT J., Letter on *Hastingsia* 299
MILLAR, CONSTANCE I., Bishop pine (*Pinus muricata*) of inland Marin County, California 123
MINNICH, RICHARD A., Range extensions and corrections for *Pinus jeffreyi* and *P. coulteri* (Pinaceae) in northern Baja California 144
MOIR, WILLIAM H. (see FRENKEL, ROBERT E. et al.)
MOORING, JOHN S., Chromosome counts in *Eriophyllum* (Compositae: Helenieae) 186
MORAN, REID, Review of *A flora of San Diego County, California* (by R. Mitchel Beauchamp) 316
MOREFIELD, JAMES D. and CLARK G. SCHAACK, Noteworthy collection of *Eriogonum ripleyi* 149
MULLER, C. H., Review of *A preliminary verified list of plant collectors in Mexico* (by Irving W. Knobloch) 231
O'BRIEN, MARIA (see LESICA, PETER, KLAUS LACKSCHEWITZ et al.)
ORNDUFF, ROBERT, Review of *Vascular plants of the Channel Islands of southern California and Guadalupe Island, Baja California, Mexico* (by Gary D. Wallace) 81
OSWALD, VERNON H., Noteworthy collection of *Rhynchospora californica* 150
PACK, STEVEN R. (see VICKERY, ROBERT K., JR. et al.)
PATT, JOSEPH M. (see PELLMYR, OLLE)
PELLMYR, OLLE and JOSEPH M. PATT, Function of olfactory and visual stimuli in pollination of *Lysichiton americanum* (Araceae) by a staphylinid beetle 47
PETERSON, PAUL M. and CAROL R. ANNABLE, Noteworthy collections of *Carex occidentalis, Coryphantha vivipara* var. *desertii, Linanthus nudatus, Mimulus montioides, Phacelia barnebyana,* and *Stipa scribneri* 79
PHILBRICK, RALPH (see DAVIS, W. S.)
PHILLIPS, DENNIS A. (see VICKERY, ROBERT K., JR. et al.)
PIERCE, JOHN (see LESICA, PETER, KLAUS LACKSCHEWITZ et al.)
PRIGGE, BARRY A., Review of *Flowering plants, the Santa Monica Mountains, coastal and chaparral regions of southern California* (by Nancy Dale) 315
QUIBELL, CHARLES F., Message from the past CBS President 318
ROGERS, GARRY F., Comparison of fire occurrence in desert and nondesert vegetation in Tonto National Forest, Arizona 278

RUST, RICH and MATT LAVIN, Noteworthy collection of *Sphagnum fimbriatum* 150
SAENZ, LORETTA and J. O. SAWYER, JR., Grasslands as compared to adjacent *Quercus garryana* woodland understories exposed to different grazing regimes 40
SANDERS, DONALD L. (see CLARK, CURTIS)
SAWYER, JR., J. O. (see SAENZ, LORETTA)
SCHAAK, CLARK G. (see MOREFIELD, JAMES D.)
SHELLY, J. STEPHEN, Noteworthy collections of *Astragalus tegetarioides, A. tetrapterus, Ivesia shockleyi, Lomatium peckianum,* and *Mimulus latidens* 150
SMITH, ALAN R., Review of *A field manual of the ferns & fern-allies of the United States and Canada* (by David B. Lellinger) 143
TANOWITZ, BARRY D. and JOHN W. ADAMS, Natural hybridization between *Layia glandulosa* and *L. paniculata* (Asteraceae: Madiinae) 244
THOMAS, JOHN H. (see CARTER, ANNETTA and JOHN H. THOMAS)
THOMPSON, HENRY J. (see CODY, MARTIN L.)
TIEHM, ARNOLD, Noteworthy collections of *Astragalus ceramicus* var. *ceramicus, Gilia congesta* var. *crebrifolia,* and *Ranunculus natans* var. *intertextus* 228
TIMBROOK, STEVEN, Segregation of *Loeseliastrum* from *Langloisia* (Polemoniaceae) 157
TOMBACK, DIANA F., Post-fire regeneration of krummholz whitebark pine: a consequence of nutcracker seed caching 100
VAN DEVENDER, THOMAS R. and FRANK G. HAWKSWORTH, Fossil mistletoes in packrat middens from the southwestern United States 85
VEIRS, STEPHEN D., JR., Letter on spines of *Washingtonia* 233
VICKERY, ROBERT K., JR., BYOUNG-KY KANG, THUONG K. MAC, STEVEN R. PACK, and DENNIS A. PHILLIPS, Chromosome counts in *Mimulus* sect. *Erythranthe* (Scrophulariaceae). III 264
WEBER, WILLIAM A., *Salix lanata* subsp. *calcicola* in Colorado 148
WEBER, WILLIAM A., Commentary on pronunciation of scientific names 234
WELLS, MARY P., Noteworthy collection of *Erigeron supplex* 308
WELLS, PHILIP V. (see LESICA, PETER)
WEINS, CAROL DEDECKER (see WEINS, DELBERT et al.)
WEINS, DELBERT, MARY DEDECKER, and CAROL DEDECKER WEINS, Observations on the pollination of *Dedeckera eurekensis* (Polygonaceae) 302

Dates of publication of MADROÑO, volume 33

No. 1, pp. 1–84: 27 Mar 1986
No. 2, pp. 85–156: 30 May 1986
No. 3, pp. 157–236: 5 Sep 1986
No. 4, pp. 237–328: 23 Dec 1986